Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
Skype Communications S.A.R.L.	)	RM – 11361
Petition to Confirm A Consumer's Right to Use Internet Communications Software and Attach Devices to Wireless Networks	)	

REPLY COMMENTS OF VERIZON WIRELESS

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I. INTRODUCTION AND SUMMARY

Most parties filing comments in this proceeding agree that the wireless industry is vibrantly competitive and that the Commission should reject Skype's requests to extend *Carterfone* to the wireless industry and to conduct mlemakings to implement *Carterfone*-like regulation for wireless. Parties opposing Skype's Petition include wireless carriers,' handset manufacturers,[2] trade associations: and public interest groups.[4] Indeed, the evidence provided by these parties overwhelming demonstrates that Skype's petition must be rejected.

[1] See Comments of Verizon Wireless ("Verizon Wireless Comments"); Comments of AT&T, Inc. ("AT&T Comments); Comments of MetroPCS Communications, Inc. ("MetroPCS Comments"); Comments of Sprint Nextel Corporation ("Sprint Nextel Comments"); Comments of T-Mobile USA, Inc. ("T-Mobile Comments); Comments of United States Cellular Corporation ("US Cellular").

[2] *See* Comments of LG Electronics MobileComm USA ("LG Comments"); Comments of Motorola, Inc. ("Motorola Comments"); Comments of QUALCOMM Inc. ("QUALCOMM Comments").

The evidentiary difference in the comments filed with the Commission is stark. On the one hand, the parties opposing Skype's Petition have provided the Commission with detailed comments, sworn declarations, technical papers, and economic analyses.[5] These materials describe the practices of various wireless carriers, explain the reasons why these practices are reasonable, and detail the technological and regulatory problems associated with extending *Carterfone* to the wireless industry.

By contrast, commenters supporting Skype offer nothing new or substantive, merely rehashing the allegations in Skype's Petition or regurgitating material from Professor Wu's paper upon which Skype's Petition is based. Their claims about practices in the wireless industry are belied by the facts, their predictions about the alleged benefits of extending *Carterfone* to the wireless industry are wildly speculative, and their endorsement of *Carterfone* ignores the harmful effects on consumers, and on innovation, that would result from imposing such a regime on the wireless industry.

The Commission's decision in this proceeding must be guided by the facts and sound analysis, not rhetoric of the sort offered by Skype and its supporters. It also must be consistent with the law, which is an issue that Skype's supporters largely ignore. Under the law, the Commission's authority to regulate the wireless industry extends to circumstances of market

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3 *See* Comments of Consumer Electronics Association ("CEA Comments"); Comments of CTIA – The Wireless Association® ("CTIA Comments"); Comments of Information Technology Council ("ITIC Comments").

4 *See* Comments of Freedom Works ("Freedom Works Comments"); Comments of the Voice On the Net Coalition ("VON Coalition").

5 *See generally* Verizon Wireless Comments, Exhibits A – C; Declaration of Kelly Williams, Michelle Mindala, Cameron Coursey, Ed Lambert, Jim Ryan, and Cathy Quaciari in Support of Comments of AT&T, Inc. ("AT&T Supporting Declaration"); CTIA Comments, Exhibits C – F.

failure. No such market failure has occurred that would warrant the ***Carterfone*** regime that Skype seeks to impose. Moreover, there is no plausible legal basis on which the Commission can issue the declaratory ruling that Skype's few supporters demand – and they offer none. To the contrary, taking that action would be an unlawful breach of the spectrum contract the Commission has entered into with licensees and would be an unconstitutional taking.

11. SKYPE'S PROPOSAL IS NOT LEGALLY PERMISSIBLE, ECONOMICALLY VIABLE, OR TECHNICALLY FEASIBLE.

A. None Of Skype's Supporters Has Demonstrated That A Market Failure Exists That Would Overcome The High Hurdle To Imposing *Carterfone.*

In its initial comments, Verizon Wireless outlined the high hurdle that Congress set for regulation of the wireless industry – a hurdle that Skype's proposals do not come close to clearing.[6] As Congress has stated and the Commission has recognized, absent a market failure, competition and deregulation are the hallmarks of the wireless industry.[7] Here, there has been no market failure, and neither Skype nor its supporters have demonstrated otherwise.

As CTIA, among others pointed out, in the last 15 years, the wireless industry "has evolved into a highly efficient, competitive industry, and that competition has produced incredible consumer benefits."[8] CTIA lists almost 150 national, regional or local carriers that compete in various areas,' and explains how wireless prices have steadily dropped and

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6 Verizon Wireless Comments at 4-6; ***see also*** AT&T Comments at 36-38.

7 ***See*** 47 U.S.C. § 332(a)(2), ***(3); Implementation** of **Sections 3(n) and 332** of **the Communications Act,*** Third Report and Order, 9 FCC Rcd 7988, 8012 (1994) (recognizing Congress's desire to allow "economic forces – not regulation – to shape the development of the CMRS market").

8 CTIA Comments at 5.

9 ***Id.***

innovative pricing plans have appeared with incentives to attract subscribers." In short, the facts provided to the record belie the claims of Skype and its supporters that attempt to justify *Carterfone-like* regulation of the wireless industry.

For example, claims that "the wireless industry today is far more concentrated than it was in 1992" are factually incorrect.[11] In 1992, when the Commission upheld the bundling of wireless services and handsets, the Commission's rules allowed no more than two facilities-based wireless carriers in a market.[12] The duopoly situation that existed 15 years ago stands in sharp contrast to the extremely competitive conditions in the wireless market today, with at least five wireless carriers in the vast majority of markets.

Equally unsupported are the assertions by Skype's supporters that wireless carriers have a "dominant position in wireless service and retail handset markets."[13] Such claims cannot be reconciled with the Commission's recent finding that no competitor "has a dominant share of the market" and its conclusion that the wireless industry "continues to behave and perform in a competitive manner."[14] With respect to the handset market, wireless carriers are not engaged in manufacturing, and the handset manufacturing market is exceedingly competitive.[15]

Deregulation and competition in the wireless industry stand in stark contrast to the monopoly practices of AT&T at issue in *Carterfone,* and these differences have legal

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10 *Id.* at 11.

11 Comments of Consumers Union, Consumer Federation of America, and Free Press at 12 ("Consumers Union Comments").

12 *Bundling of Cellular Customer Premises Equipment and Cellular Service,* 7 FCC Rcd 4028, 4032 (1992) *("Cellular CPE Bundling Order").*

13 Comments of the Ad Hoc Public Interest Spectrum Coalition at 1 ("Ad Hoc Comments").

14 *See Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Eleventh Report,* 21 FCC Rcd 10947, ¶ 3 (2006) *("Eleventh Report").*

15 *See* Verizon Wireless Comments at 11-15.

consequences, which Skype and its supporters ignore. Although the Commission's *Carterfone* decision and Skype's Petition are based on Sections 201 and 202, Skype's supporters ignore that these provisions apply differently in the wireless industry.

For example, in *Orloff v. Vodafone AirTouch Licenses LLC,*[16] a wireless customer asserted that a wireless carrier violated Sections 201 and 202 by offering discounts and other inducements to certain customers taking service under the carrier's calling plans that the carrier did not make available to the plaintiff. The Commission rejected this assertion, finding that the wireless carrier did not violate the Act, even if some customers were able to negotiate better deals than other customers, given the "indisputable competition" in the wireless marketplace.[17] As the Commission explained, "market forces" were sufficient to protect consumers from the practices about which the plaintiff was complaining, and, absent evidence of a market failure that "prevented customers from switching carriers if they were dissatisfied," the Commission found it unlikely that a carrier would have any incentive to engage in conduct that "would result in a loss of customers."[18]

The Commission's reasoning applies equally here. The wireless sector is fiercely competitive, and wireless carriers have no incentive to engage in any conduct that would result in the loss of customers. The practices about which Skype and its supporters complain represent a reasonable exercise of a carrier's business judgment about the best way to compete and to attract and retain customers in a fiercely competitive marketplace. They are also means by which carriers distinguish themselves in the marketplace. If the carrier is wrong, and customers object

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16 17 FCC Rcd 8987, Memorandum Opinion and Order (2002), *aff'd Orloff v. FCC,* 352 F.3d 415 (D.C. Cir. 2003).

17 17 FCC Rcd at 8996-97.

18 *Id.*

to such practices, those customers will go elsewhere, and the carrier will suffer the competitive consequences. This is precisely how competitive markets should function, and there is no legal, economic, or policy ground upon which to find a violation of Sections 201 or 202 as alleged by Skype.

B. Commenters Supporting Skype Mischaracterize Existing Wireless Practices And Incorrectly Claim Benefits Of Extending *Carterfone.*

Adding nothing new to Skype's Petition, Skype's supporters merely rehash complaints about wireless carrier practices without regard to the accuracy of the facts. A good example concerns claims that wireless carriers "cripple" features such as BlueTooth functionality and Wi-Fi connectivity – claims that are false." As AT&T noted, by the end of the first half of 2007, more than 80 percent of AT&T handsets will be Bluetooth-enabled, and AT&T sells a range of handsets with Wi-Fi functionality.[20] Similarly, according to T-Mobile, nearly 80% of its handsets have Bluetooth capability, and "more than 80 handsets on the market have built-in Wi-Fi capability."[21]

Skype's supporters also erroneously argue that wireless carriers employ "technical barriers to prevent consumers from using their own equipment on a carrier's network,"[22] pointing to a statement by Professor Wu that 90-95% of handsets sold in the United States "are sold by

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19 Ad Hoc Comments at 3 (citing Professor Wu); Consumers Union Comments at 5 (citing Skype Petition).

20 AT&T Supporting Declaration at ¶¶ 31-33.

21 T-Mobile Comments at 16, n.66 & 32; see also CTIA Comments at 18-20 (noting wireless carriers that make available Wi-Fi functionality).

22 Ad Hoc Comments at 2 (citing Professor Wu); ***see** also* Consumers Union Comments at 2-3 (alleging that carriers "block or deter consumers from taking phones with them when they change carriers ...," citing Professor Wu); Comments of the National Association of State Utility Consumer Advocates at 3 ("NASUCA Comments") (asserting that a wireless customer cannot "'bring his own phone' and use it on the carrier's network – unless of course the phone originally came from that carrier").

carriers for use on their network [sic]."[23] However, Professor Wu cites no statistical study or market research for this 90-95% figure, which apparently came from an online news article that did not cite its source.

This 90-95% figure is inaccurate. According to a 2005 report by the independent research firm Telephia, wireless carrier retail stores accounted for only 47 percent of sales to "mobile phone buyers who made a device purchase in the last six moths p[of 2005]," with an additional 11 percent of purchases being made from carrier websites.[24] The Telephia survey data also revealed that"[a]mong recent wireless device purchasers who subscribed to a pre-paid plan, 40 percent bought from a major retailer," as opposed to just 20 percent purchasing from wireless carriers' retail stores.[25] In addition, according to the NPD Group, another independent research firm, sales data from the first quarter of 2006 reflect that Wal-Mart sold more than two million mobile devices, overtaking "T-Mobile company owned store as the fourth most popular place to buy mobile phones."[26] Accordingly, consumers have numerous options other than carriers for the purchase of wireless handsets, and they are not "prevented" from using such devices, as Skype's supporters erroneously claim.[27]

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23 Ad Hoc Comments at 2.

24 Telephia, "Wal-Mart and RadioShack Secure 60 percent of the Major Retailer Market Share for Recent Mobile Devices Purchases," 2 (2005), http://telephia.com/documents/DeviceRetailFINAL2.7.05.pdf.

25 *Id.*

26 Charul Vyas, *Wal-Mart – The New Wireless Powerhouse?,* NPD Bulletin 2006, http://wireless.npd.com/bulletin_walmart_new wireless.html.

27 *See, e.g.,* T-Mobile Comments at 30 (noting that T-Mobile "broadly permits customers to use GSM handsets that can operate at 1.9 GHz on its network"). There is no evidence, and Skype supporters offer none, to support their allegation that wireless carriers "have largely ignored the requirement to offer service separately [from handsets]" in violation of the Commission's *Cellular CPE Bundling Order.* Ad Hoc Comments at 2. To the extent any aggrieved consumer truly believed that a wireless carrier had failed to comply with the *Cellular*

Commenters' claims about handset "locking" fare no better.[28] As made clear in its initial comments, Verizon Wireless does not lock handsets provided to post-paid customers, and consumers can readily purchase unlocked handsets if they are willing to forgo subsidies (which is rarely the case).[29] T-Mobile's policy is to unlock "subsidized phones on request 90 days after purchase,"[30] while AT&T will unlock non-subsidized handsets and subsidized handsets for which the customer's contractual obligation has been fulfilled upon customer request if the handset supplier has permitted AT&T to do so and has provided AT&T with this capability.[31] In short, there is no credible evidence, and Skype's supporters offer none, that handset "locking" prevents customers from switching wireless carriers.[32]

The unsupported rhetoric of Skype's supporters is not limited to handset practices but extends to broadband applications as well. For example, the assertion that the availability of 3G wireless broadband services is limited to "walled garden" offerings is simply untrue.[33] Verizon Wireless offers a service "through which wireless users can access any Web site from their

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*CPE **Bundling Order,*** the consumer could file a complaint with the Commission, although to Verizon Wireless' knowledge, no such complaint has been brought in the 15 years since the Commission adopted the ***Cellular*** *CPE* ***Buniling Order.*** The suggestion (NASUCA Comments at 2) that consumers are unaware of their ability to purchase wireless service plans separately from handsets ignores the multitude of handsets that are available from third-party retailers and handset manufacturers, which have ample incentive to make consumers aware of their ability to purchase handsets directly from them rather than from wireless carriers.

28 Ad Hoc Comments (citing Professor Wu); Consumers Union Comments at **3** (citing Professor Wu); NASUCA Comments at **3** (citing Professor Wu).

29 Verizon Wireless Comments at 22.

30 T-Mobile Comments at **30.**

31 AT&T Supporting Declaration at ¶¶ 15-17.

32 ***See Wireless Tel. Servs. Antitrust Litigation,*** **385** F. Supp. 2d **403,430** (S.D.N.Y. 2005) (rejecting claims that handset locking reduces churn or causes anticompetitive effects in the handset market).

33 Consumers Union Comments at 11.

mobile phones."[34] T-Mobile and other carriers "make unfettered Internet access ... widely available,"[35] while Sprint Nextel "offers phones that can download and operate alternative Internet browsers and completely bypass Sprint Nextel's walled garden."[36] In addition, EvDO wireless broadband cards offered by Verizon Wireless and Sprint Nextel allow customers with a laptop computer to "search the Internet and perform almost any function they would ordinarily do with a cable modem or DSL connection."[37]

Skype's supporters also conflate their objection to particular carrier practices – such as limiting "bandwidth hog" applications -- with the alleged nondisclosure of such practices.[38] Besides being irrelevant to ***Carterfone,*** allegations of nondisclosure are untrue. Limitations on the applications that may be used by subscribers are clearly and conspicuously disclosed, and the description of data plans as unlimited refers to the practice of charging a fixed fee – rather than a metered, per bit charge – for data usage. This is consistent with the manner in which carriers market unlimited voice plans, which consumers understand and widely embrace, and customer service agreements clearly disclose these conditions of use.[39]

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34 Verizon Wireless Comments, Exhibit B – Implications of the Skype Petition for Wireless Carriers and Consumers by Mark Lowenstein, at 10 ("Lowenstein Statement").

35 T-Mobile Comments at 42.

36 Sprint Nextel Comments at 25.

37 ***Id.*** at 26; ***see also*** Verizon Wireless Comments at 24.

38 Consumers Union Comments at 4.

39 As Verizon Wireless explained in its initial comments, limits on "bandwidth hog" applications perform a legitimate network management function. ***See*** Comments of Verizon Wireless at 47-48; ***see also*** Verizon Wireless Comments, Exhibit A – Wireless ***Carterfone:*** An Economic Analysis by Professor Thomas W. Hazlett, at 11 (April 30,2007) ("Hazlett Statement") (noting that universities "have often restricted peer-to-peer VoIP applications such as Skype because such applications add system cost, congestion, and security threats"). Other commenters echo this view, noting that, absent reasonable limitations, usage of certain bandwidth-intensive applications by a limited number of users would impair the network

In addition to mischaracterizing the practices of wireless carriers, Skype's supporters blithely claim that extending *Carterfone* to the wireless industry would "lower consumer costs and facilitate innovation."[40] Such claims are nothing more than unsubstantiated speculation. They have not offered any concrete explanation how: (1) Carterfone would result in lower prices for wireless service when prices have declined steadily in the absence of Carterfone-like regulation;[41] and (2) consumers would pay less for wireless handsets when *Carterfone* effectively would result in the elimination of handset subsidies, leaving consumers with having to pay full fare for their wireless devices.[42] Moreover, these claims ignore the vigorous price competition that is reflected in the Commission's annual competition survey.[43]

Claims by Skype's supporters that *Carterfone* would bring increased innovation also ring hollow. The list of innovations in the wireless industry, all of which have occurred in the absence of Carterfone-like regulation, is both long and impressive. Wireless devices have grown considerably more sophisticated and offer a wealth of innovative features such as text messaging, wireless email, picture messaging, cameras, broadband Internet access, and other functionality.[44]

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experience of other users and quality of service generally. See, *e.g.,* Sprint Nextel Comments at 24; T-Mobile Comments at 21-23.

40 Ad Hoc Comments at 4; NASUCA Comments at 3 (suggesting that, if *Carterfone* were extended to the wireless industry, "one can only imagine the greater explosion of CPE" that would result).

41 Hazlett Statement at 13; AT&T Comments at 7.

42 AT&T Supporting Declaration ¶ 16 (noting that a *Carterfone*-like regime would make it "cost-prohibitive for AT&T to offer substantial handset subsidies"); T-Mobile Comments at 36 ("carriers would have little incentive to offer discounted phones to customers if those customers were able to take the phones to another carrier immediately").

43 Eleventh Report, ¶¶ 90-91.

44 Lowenstein Statement at 10 (noting that a wireless user "can go to the Major League Baseball web site and choose all sorts of content that can be sent to their wireless phone, including team-specific ring tones, live updates, player statistics, and video highlights''); Sprint

In fact, wireless devices routinely incorporate many features of desktop computers.[45] Skype's supporters do not and cannot point to any innovative wireless service for which there is customer demand that is not currently available (or soon will be).

American Petroleum Institute ("API") asserts that businesses and other institutional customers need a single device that is interoperable with multiple broadband technologies.[46] However, such devices are currently available.[47] For example, T-Mobile offers a dual-mode handset service that allows customers to "use a single device to communicate via T-Mobile's licensed network or through any available Wi-Fi hotspot, with a seamless handoff of calls between the two modes."[48] *Carterfone*-like regulation was not necessary in order for the development of these products and services, which further illustrates that innovation in the wireless sector can and does occur without the need for regulatory intervention.[49] API's comments also ignore the many benefits that have resulted from the Commission's policies aimed at encouraging technology diversity among wireless services.

Nextel Comments at 25 (describing Sprint Nextel's "Fan View" service that allows NASCAR fans to watch video of NASCAR races).

45 See, *e.g.,* Verizon Wireless Comments at 1 1-12.

46 Comments of the American Petroleum Institute at 7 ("API Comments").

47 Hazlett Statement at *5* (noting the availability of dual-mode phones that permit customers to select between CDMA and GSM technologies); Lowenstein Statement at 4.

48 T-Mobile Comments at **33.**

49 See *also* MetroPCS Comments at 7 (noting that it offers "low cost no-contract, no termination fee, all-you-can eat wireless services" and aggressively competes "offering differentiated services"). The innovations in the wireless market stand in stark contrast to the wireline CPE market at the time of *Carterfone*, which basically consisted of a black rotary phone from the Bell System. While *Carterfone* was imposed on AT&T to ensure the development of competition in wireline CPE, innovations in wireline CPE since then pale in comparison to that of wireless devices. In fact, the functionality of wireline CPE has remained relatively stable over the years, while innovations in handsets have continue unabated.

The theory of Skype's supporters that ***Carterfone*** would result in lower costs and increased innovation in the wireless industry is not supported by any facts and is refuted by the expert economic analyses in the record. For example, Professor Thomas W. Hazlett offers detailed economic theory and evidence demonstrating that extending ***Carterfone*** to the wireless industry would undermine economic efficiency and would be strongly anti-consumer.[50] Similarly, Robert Hahn and Robert Litan with AEI-Brookings Joint Center and Hal Singer with Criterion Economics conclude that the current light-handed approach to wireless regulation generated roughly $50 billion in consumer welfare in 2005 alone, which would be put at risk if the government regulated the wireless market as sought by Skype.[51] Finally, Drs. Ford, Koutsky, and Spiwak of the Phoenix Center find that extending ***Carterfone*** to the wireless industry would commoditize wireless network services and thereby substantially lessen prospects for entry and competition in the industry.[52] This evidence shows that granting Skype's Petition would in fact harm competition and consumers.

C. Commenters Supporting Skype Ignore Significant Technical And Regulatory Problems With Skype's Proposals.

As explained in the initial comments of Verizon Wireless and other commenters, there are numerous differences between wireline and wireless technologies that would make extending ***Carterfone*** to the wireless industry extremely problematic from a technical and regulatory standpoint. These differences include: (1) the lack of a uniform standard for wireless networks,

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[50] Hazlett Statement at 3-21.

[51] CTIA Comments, Exhibit E – The Economics of "Wireless Net Neutrality" By Robert W. Hahn, Robert E. Litan, and Hal J. Singer (April 2007).

[52] CTIA Comments, Exhibit F – Wireless Net Neutrality: From ***Carterfone*** to Cable Boxes by George **S.** Ford, Ph.D., Thomas M. Koutsky, Ph.D., and Lawrence J. Spiwak, Ph.D. (April 2007).

which are based on different and competing technologies and air interfaces; (2) the use of radio spectrum, which is a shared resource that has unique capacity constraints and that requires active network management; and (3) the technical integration of wireless handsets with the wireless network.[53] Skype and its supporters largely ignore these issues.

The notion that extending *Carterfone* to the wireless industry would result in wireless service being made available on a stand-alone basis with "non-carrier-supplied phones ... outside the control of the wireless provider" would hardly be in the best interests of consumers.[54] As one industry analyst has noted, poor-quality wireless handsets can impair the wireless service delivered to numerous other wireless customers. Because shortcomings in wireless handsets can affect the coverage and capacity of the wireless system, one subscriber's decision to buy a poor-quality handset to save a few dollars may cause another subscriber's call to be blocked or dropped, and the carrier is likely to be blamed for the problem.[55]

In addition to increased interference and lower call quality,[56] there are numerous other harms to consumers that would result from *Carterfone*-like regulation of the wireless industry – harms that Skype and its supporters do not bother to address. In particular, if wireless carriers

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53 Verizon Wireless Comments at 29-47; Sprint Nextel Comments at 7-15 & 20-27; T-Mobile Comments at 19-25 & 40-48; MetroPCS Comments at 13-16.

54 Ad Hoc Comments at 6.

55 CTIA Comments, Attachment **C** – Wireless Handsets Are **Part** of the Network by Charles L. Jackson, at 10-11 (April 27,2007).

56 Verizon Wireless Comments at 34-35 (discussing the potential for increased interference and the increased difficulty of interference detection); AT&T Supporting Declaration ¶ 22; MetroPCS Comments at 14 (customers would experience "increasingly dropped calls, blockings, and degraded voice and data service"); T-Mobile Comments at 22; Motorola Comments at 9 (noting that "a device with high levels of out-of-band emissions ('OOBE') will cause interference to adjacent users, while malfunctioning or poorly functioning equipment can adversely affect other users by disabling or impeding a cell site or other wireless systems"); LG Comments at 4-6 (noting the interference concerns that would be raised by adopting Skype's proposal)

were prevented from managing the handsets supported by their networks under a *Carterfone*-like regime, customers likely would: **(1)** pay more for wireless service;[57] **(2)** pay for functionality they do not require;[58] **(3)** lose the ability to use certain data and voice services;[59] **(4)** experience reduced customer service;[60] and **(5)** face increased exposure to spyware, phishing, and other forms of customer fraud.[61] In addition, the imposition of *Carterfone* on the wireless industry would impede important public policy goals such as wireless **E91** 1 access, specialized services for the hearing and speech impaired, and CALEA compliance.[62] These harms are documented by sworn declarations and detailed exhibits that specifically describe the dangers of implementing Skype's proposal – evidence that is uncontested in the record.

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57 AT&T Supporting Declaration ¶ **20** (higher roaming rates); CTIA Comments at **37-39** (stating that "[p]oor handset performance, both in terms of voice and data service, can result in fewer connections per cell, or the need for increased cells to maintain system capacity").

58 Sprint Nextel Comments at **21.**

59 AT&T Supporting Declaration ¶ **23.**

60 ***Id.*** ¶ 24.

61 CTIA Comments at **35-36** (noting increased security risks); MetroPCS Comments at **14-15** (indicating a potential for increases in viruses); LG Comments at **4-5** (noting the dangers from "worms, malware, and viruses" that could result from an open access regime); Verizon Wireless Comments, Attachment C, Technical Statement by Brian Higgins, at **10-16** ("Higgins Statement") (discussing potential vectors and types of attacks on both the wireless device and network level); AT&T Supporting Declaration at 10**-12** (noting potential for increased security risks).

62 Verizon Wireless Comments at **35-39** (discussing the important public policy goals the Commission has implemented through carrier compliance requirements and dangers to law enforcement from implementing Skype's proposal); Sprint Nextel Comments at **20-23** (noting that the Skype proposal could undermine Commission mandates regarding **E91** 1 and other programs).

Similarly, allowing subscribers to run any "non-harmful" application of their choice over a wireless broadband operator's network risks degrading service to other users.[63] The example of a one class of applications explains the impact on other users and the network operator.

Several currently available "place-shifting" products support streaming media transmissions from a home PC or television to a wide array of devices connected to a wireline or wireless network. These software and hardware based home media appliances offer end-users the capability to view streaming content (e.g., video, music, photos) from the home location over the Internet at a remote location with a PC, laptop or handheld device loaded with the application software.

As Brian Higgins explained in his statement attached to Verizon Wireless' comments,[64] Internet applications such as streaming video use substantially more capacity than typical Internet surfing or email reading, because they require more bandwidth and for longer and continuous periods of time. Thus, while the user of a TV place-shifting device may enjoy watching his home TV in the waiting lounge of an airport over a wireless broadband connection, such usage can result in the other subscribers to that broadband service in the waiting area finding it difficult to enjoy their on-line experience because their data requirements have been consumed by the disproportionate use of the place-shifting devices.

Wireless broadband service and its associated pricing models are designed with strict application and utilization assumptions. For example, a typical cell sector for a wireless broadband service might be anticipated to serve about 70 users at high data rates, each requiring high data rates on an as needed "bursty" basis, while reading email or surfing the Internet. Using

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63 *See* NASUCA Comments at **7-9.**

64 Higgins Statement at 22-23.

these assumptions, the network operator can calculate the volume of users and subscription fees required to provide a satisfactory on-line experience at a reasonable price. Mandating access for streaming media applications to wireless networks would make these assumptions invalid. While bursty activities require high speed data rates on an intermittent basis, streaming video requires *continuous transmission* at high data rates. **A** few users watching streaming video in the same airport lounge would allow the cell sector to serve only a fraction of the anticipated users of the wireless broadband network.

Streaming video is just one bandwidth intensive application. There are others; but, all would adversely impact network availability for other users. Moreover, to account for widespread use of such applications, the network operator would have to prepare a different model for its broadband infrastructure, which might require deploying additional cell sites, imposing new costs and potentially price increases.

Skype and its supporters complain about the limits on wireless carriers place on broadband services. But, modeling the network for anticipated usage and reasonable prices requires complex tradeoffs that only the wireless operator can achieve to maximize efficient network use. Skype and its supporters would prefer that individual consumers make the resource allocation decisions on their own, without having any idea of, or responsibility to, other users; but that would disserve the public interest. The result will be either denial of service to other users as bandwidth intensive activities increase, and/or increased service rates to subscribers to control access to the shared resource. **As** long as wireless broadband services operate over limited and shared spectrum resources, more consumers will benefit when the network operator is making resource allocation decisions in the public interest as required by its spectrum licenses, rather than leaving resource allocation decisions to users on the network.

III. THE COMMISSION SHOULD REJECT INCORRECT ARGUMENTS ABOUT BROADBAND COMPETITION.

Attempts to justify *Carterfone-like* regulation of the wireless industry by asserting that the broadband market "is not a competitive market" are unpersuasive.[65] The Commission repeatedly has held, and the courts have agreed, that the broadband market is vibrantly competitive.[66]

The competitiveness of the broadband market makes it unnecessary for the Commission to resolve issues in this proceeding concerning the scope of its Policy Statement,[67] which several commenters argue already applies,[68] or should apply,[69] to the wireless industry. To the extent a wireless carrier engages in any conduct with respect to its broadband offering that a customer finds objectionable, that customer has numerous other options.

Furthermore, the Commission has issued a broad Notice of Inquiry ("NOI") for the purpose of gathering data on the state of the broadband industry and seeking comment on the

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[65] Consumers Union Comments at 8.

[66] *See, e.g., United States Telecom Ass'n v. FCC,* 359 F.3d 554,585 (D.C. Cir. 2004) (noting "the persistence of substantial competition in broadband"), *cert. denied, Nat'l Ass'n of Regulatory Util. Commr's v. United States Telecom Ass'n,* 125 S. Ct. 313 (U.S. 2004); *In re: Petition for Forbearance of the Verizon Telephone Companies Pursuant to 47 U.S.C. § 160(c); SBC Communications Inc.'s Petition for Forbearance Under 47 U.S.C. § 160(c); Qwest Communications International Inc. Petition for Forbearance Under 47 U.S.C. § 160(c); BellSouth Telecommunications, Inc. Petition for Forbearance Under 47 U.S.C. § 160(c),* 19 FCC Rcd 21496,21504, Memorandum Opinion and Order, ¶ 22 (2004) (finding that the "broadband market is still an emerging and changing market, where . . . the preconditions for monopoly are not present," with emerging competition from "multiple sources and technologies ..."), *aff'd, Earthlink, Inc. v. FCC,* 462 F.3d 2 (D.C. Cir. 2006).

[67] *In the Matter of Appropriate Framework for Broadband Access to Internet Over Wireline Facilities*, Policy Statement, FCC 05-151 (rel. Sept. 23,2005) ("Policy Statement").

[68] ITIC Comments at 1 & 4.

[69] CEA Comments at 2; VON Coalition Comments at 2.

scope of the Policy Statement.[70] The NOI docket, rather than this proceeding, is the appropriate procedural vehicle for the Commission to consider the Policy Statement as it relates to wireless carriers. As the VON Coalition correctly points out, issues surrounding the application of the Policy Statement to wireless carriers are considerably more complicated than some commenters would have the Commission believe.[71]

Calls that the Commission expand the Broadband Policy Statement to include a nondiscrimination requirement are particularly misguided. Although Skype's supporters point to the "net neutrality" conditions approved by the Commission in connection with the AT&T-BellSouth merger,[72] they overlook the fact that the specific language to which AT&T agreed applies only to its wireline and fixed wireless broadband Internet access services, and not to wireless broadband service offered by Cingular (now AT&T Mobility).[73]

Claims that "[n]on-discrimination requirements will help ensure that applications on those consumer-chosen devices function properly over carrier-managed networks" demonstrate a lack of understanding of how wireless service works.[74] A nondiscrimination requirement may allow users to *attempt* to use any device or application on a wireless network. However, as Verizon Wireless and others discussed in their comments, ensuring that devices and applications

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70 *In the Matter of Broadband Industry Practices,* Notice of Inquiry, FCC 07-31 (rel. Apr. 16,2007) ("Broadband NOI").

71 VON Coalition Comments at 7-8 (noting that "network management and technological concerns may be very different for wireless networks compared to wireline networks" and advocating expansive view of wireless carriers' ability to limit the right of customers to attach devices to the network in order to prevent "harm to the network").

72 Ad Hoc Comments at 7-8.

73 *AT&T Inc. and BellSouth Corporation Application for Transfer of Control,* Memorandum Opinion and Order, WC Docket No. 06-74, at 154, n. 15 (March 26,2007).

74 Ad Hoc Comments at 7; *see also* Consumers Union Comments at 13.

work "properly" over a wireless network often involves considerable coordination between the application developer, the handset manufacturer, and the wireless carrier.[75]

IV. MANDATING *CARTERFONE* RULES FOR SERVICES USING LICENSED SPECTRUM WOULD UNLAWFULLY BREACH THE SPECTRUM CONTRACT AND BE AN UNCONSTITUTIONAL TAKING.

The voluminous record in this proceeding demonstrates that wireless carriers of all sizes have relied heavily on the Commission's existing regime governing CMRS and wireless broadband services not only to invest in building out their networks, but also to implement business strategies that include, inter alia, sales of bundled services and products. Imposition of Carterfone-like rules on wireless services would drastically alter how wireless operators conduct business and how they use licensed spectrum to implement their business strategies.

For example, if the Commission imposed new Curterfone-like restrictions on the ability of wireless operators to offer bundled handsets and service to consumers, an entire segment of their commercial enterprises – sales of handsets -- would be harmed. If wireless operators had to allow subscribers to run any and all "non-harmful" applications of the subscribers' choosing, then the techniques operators use to manage and allocate spectrum usage among subscribers would be vitiated, requiring a new set of assumptions about how spectrum resources are assigned and priced. These significant changes to the expectations of wireless licensees, developed in reliance on the Commission's long-standing Title III licensing and operational regime for CMRS, would trigger serious legal deficiencies.

75 Higgins Statement at 8-10 & 17-21 (providing specific examples of the complex nature of deploying new functions and managing a wireless network); Sprint-Nextel Comments at 24-27 (noting the potential for network harm from unapproved applications); AT&T Comments at 60-63 (noting that AT&T's certification requirements are based on "sound principles of network management"); Motorola Comments at 13-16.

A. Mandating *Carterfone* Rules in Licensed Spectrum Would Breach the FCC's Contractual Obligations to CMRS Licensees.

A spectrum license is a contract with the Commission in which the licensee is authorized to exploit a government resource (spectrum) to the benefit of both parties with complementary contractual obligations to enable that result.[76] Accepting the right to use cellular or PCS spectrum commits the licensee to various responsibilities, including abiding by applicable Commission rules and providing service to consumers. But, as an inducement to make the investment to build out and provide service, licensees enjoy a reasonable expectation of use of, and rely on the continued ability to use, the spectrum exclusively, based on the rules in effect or contemplated at the time of licensing.

Like other contracts with the government, a spectrum license comes with the potential for subsequent changes in government rules. However, courts have recognized that an implied covenant of good faith and fair dealing places limits on the government's ability to change the terms of an agreement through subsequent legislation (or rulemaking) to the detriment of the private party.[77] This implied covenant of good faith and fair dealing "includes the duty not to interfere with the other party's performance and not to act ***so* as** to destroy the reasonable expectation of the other party regarding the fruits of the contract."[78] While the government cannot generally be precluded by contract from exercising its right to pass legislation, a pre-

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76 *See Installment Payment Financing for Personal Communications Services (PCS) Licensees,* 14 FCC Rcd 6571, 6581 n.66 (1999); *see also NextWave Personal Communications, Inc. v. FCC,* 200 F.3d 43, 60 (2d Cir. 1999) ("The close of the auction established the FCC's obligation to grant NextWave the Licenses if the company fulfilled the statutory eligibility requirements").

77 *See Centex Corp. v. United States,* 395 F.3d 1283 (Fed. Cir. 2005); *see also United States v. Winstar*, 518 **U.S.** 839 (1996) (holding **U.S.** liable for breach of contract and rejecting government's defenses against payment of damages).

78 *Centex,* 395 F.3d at 1304.

existing contract can "bind the government to pay damages in the event such legislation is found to breach the contract."[79]

The Commission has stated that its licenses create ''spectrum usage rights" that are "defined within the terms, conditions, and period of the license at the *time of issuance*."[80] Furthermore, the Commission has noted that licensees' rights and responsibilities "define and ensure their economic interests."[81] For CMRS licensees, these rights include exclusive use of not only the base station frequencies but also the associated mobile frequencies.[82] CMRS licensees have relied on these rights to invest in their networks,[83] and to pursue business enterprises that include more than just offering spectrum access rights to subscribers, e.g., through FCC-authorized bundling of mobile services with sales of CPE.[84] The Commission and Congress have also eliminated rate regulation and tariffing for wireless services, allowing carriers to rely on the competitive market to recover costs and profits.[85]

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79 ***Id.*** at 1309.

80 *Principles for Promoting the Efficient Use of Spectrum by Encouraging Development of Secondary Markets, Policy Statement,* 15 FCC Rcd 24178, 24187, ¶ 22 (2000) (emphasis added).

81 ***Id.*** at 24186, ¶ 20; *see also* PCS Blocks **A** & B, Bidder's Information Package, at 16 (winning bidders are bound by terms in Commission's Reports and Orders, Public Notices and in the Bidder's Information Packages).

82 *See* 47 C.F.R. §§ 22.905, 24.229, 22.927.

83 *See, e.g., Amendment of the Commission's Rules to Establish New Personal Communications Services, Second Report and Order,* 8 FCC Rcd 7700, 7753, ¶ 131 (1993) (PCS renewal expectancy designed to "provide a stable environment that is conducive to investment, and thereby will foster the rapid development of PCS").

84 *Bundling of Cellular Customer Premises Equipment and Cellular Service*, 7 FCC Rcd 4028 (1992).

85 *See* 47 U.S.C. § 332(c)(1); *Implementation of Sections 3(n) and 332 of the Communications Act*, 9 FCC Rcd 1411, 1478-81 (1994).

The Commission has recognized that it has a responsibility to use its regulatory authority to protect these licensee rights.[86] But, the Commission would essentially eliminate these rights and the commercial benefits that flow from them by imposing a *Carterfone* regime and restricting the ability of CMRS licensees to bundle products and services and to preclude subscriber-determined use of the network. Such action would violate the duty of good faith and fair dealing that protects licensees against undercutting their reasonable expectations regarding the spectrum contract, particularly when the government contributed to those expectations.[87]

A licensee cannot preclude the Commission's actions to manage spectrum, when needed, as a government resource, as permitted by Section 316 of the Communications Act. However, the fact that the Commission has the authority to modify licenses does not mean that every modification is legal, or that a modification does not come without a price for breach of contract.[88] Such provisions of the Act do not negate the Commission's responsibility to honor its contractual commitments to existing licensees and to compensate a licensee for the Commission's spectrum management decisions that impair the benefit of the bargain made with the licensee, when the Commission's post-contract regulations step over the boundary of good faith and fair dealing.[89]

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86 *FCC v. NextWave Personal Communications,* Case Nos. 01–653 and 01–657 **(U.S.),** Brief for the Federal Communications Commission, at 34 n. 10 (May 6, 2002) ("While [winning bidders] must obey FCC rules and make the required payments, the FCC must protect [their] exclusive right to the spectrum and refrain from authorizing others to use that spectrum.").

87 *See Centex,* 395 F.3d at 1304 *et seq.*

88 *See* Winstar, 518 **U.S.** at 871-900 (rejecting government's "unmistakability" and "sovereign act" defenses); *Centex,* 395 F.3d at 1306-11 (same).

89 The *Winstar* and *Centex* cases do not simply challenge the Commission's right to modify licenses, as the Commission stated in rejecting a contract-based argument in another context. *Facilitating the Provision of Spectrum-Based Services to Rural Areas and Promoting Opportunities for Rural Telephone Companies to Provide Spectrum-Based Services,* 19 FCC Rcd

B. Authorizing *Carterfone* Rules for Licensed Spectrum Would Be an Unconstitutional "Taking" Without Just Compensation.

CMRS licensees have developed their commercial enterprises based in part on the fact that the Commission has explicitly conferred "exclusive" rights on cellular and PCS licensees within their respective service areas and spectrum boundaries.[90] Cellular and PCS licensees have invested substantial sums in reliance on this exclusivity, developing their networks to provide intensive, broad coverage, introducing new, higher-capacity technologies, and developing an array of innovative mobile handsets and devices, bundled with service, to work on the carriers' network. Imposition of a *Carterfone* regime fundamentally changes the nature of this licensing scheme, so as to constitute a taking of property.

While an FCC license is not strictly "property" of the licensee," courts have nevertheless found that licenses convey rights that do constitute cognizable, valuable property interests that the Commission may not lawfully impair.[92] Thus, a license is not just "a non-protected interest, defeasible at will."[93] An FCC licensee's interests are defined by the terms and conditions of

19078, 19125-26 (2004). Rather, these cases demonstrate that fundamental changes in the ability of licensees to use the spectrum as licensed negate a licensee's reasonable expectations and impair its investment, and require compensation to the licensee.

90 *Ultra-Wideband Transmission Systems, Memorandum Opinion and Order and Further Notice of Proposed Rule Making,* 18 FCC Rcd 3857, ¶ 74 (2003).

91 *See* 47 U.S.C. § 301; *FCC v. Sanders Bros. Radio Station,* 309 U.S. 470,475 (1940); *see Prometheus Radio Project v. FCC,* 373 F.3d 372,428-429 (3d Cir. 2004).

92 *See, e.g., In re Atlantic Business and Community Development Corp.*, 994 F.2d 1069, 1073-74 (3d Cir. 1993) ("We do not think *Sanders Brothers* holds that an FCC license has none of the attributes of property. The Communications Act itself seems to imply the existence of a limited property right in an FCC license once it is granted.") (citations omitted); *L.B. Wilson, Inc. v. FCC,* 170 F.2d 793,798 (D.C. Cir. 1948) ("the right under a license for a definite term to conduct a broadcasting business requiring — as it does — substantial investment is more than a mere privilege or gratuity. . . . a business conducted under it may be the subject of injury").

93 *Orange Park Florida T.V., Inc. v. FCC,* 811 F.2d 664,674 n.19 (D.C. Cir. 1987).

each license and the governing statute and Commission's rule parts. The most relevant components of this bundle of rights for a CMRS licensee are the right to use the spectrum, both for base stations and mobile devices, to the maximum extent feasible[94] and the right to exclude others from using the same spectrum.[95]

The Commission's ability to impair these rights to serve a public interest objective is constrained by the Fifth Amendment's prohibition of any government "taking" of private property rights for public use without just compensation.[96] A taking may be *per se* or regulatory. Whether construed as *per se* or regulatory, imposition of a *Carterfone* regime to force carriers to accept any and all devices and applications on their networks would constitute an unconstitutional taking of property without just compensation.

Per Se Taking. Imposition of a *Carterfone* regime would deprive licensees of the exclusive right currently held to decide what radio transmitters and services operate over their licensed frequency bands – a right implicit in a licensee's obligation under Title III and the Commission's rules to ensure that every device is compliant. This exclusive right is included in the bundle of rights granted in existing licenses, and so, such action would constitute a taking *per se*,[97] giving rise to "a categorical duty to compensate" the licensee so deprived.[98]

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94 *See Regulatory Treatment of Mobile Services, Third Report and Order,* 9 FCC Rcd 7988, 8042, ¶ 95 (1994).

95 *See Public Utility Commission of Texas,* 13 FCC Rcd 3460, 3503, ¶ 89 (1997); *Regulatory Treatment of Mobile Services,* 9 FCC Rcd at 8042; *see also BellSouth v. FCC,* 162 F.3d 1215, 1223 (D.C. Cir. 1999).

96 **U.S.** CONST., amend. 5.

97 *See Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency,* 535 **U.S.** 302, 321 (2002); *see also United States v. Cauchy,* 328 **U.S.** 256 (1946); *Portsmouth Harbor Land & Hotel Co. v. United States,* 260 **U.S.** 327, 329-30 (1922).

98 *Tahoe-Sierra,* 535 **U.S.** at 322.

Regulatory Taking. Even if the authorization of *Carterfone* regime for already-licensed spectrum does not constitute *a per se* taking, it would certainly constitute a regulatory taking that is, likewise, permitted only if just compensation is paid. The Supreme Court applies a three-part test to determine whether government action that regulates the owner's use of property is a regulatory taking.[99]

First, the character of *Carterfone* rules would be invasive and unusual. Granting subscribers, rather than licensees, the right to determine the devices and applications that use spectrum through restricting bundling of services and products would directly intrude on the existing licensees' ability to exploit that spectrum fully, as expected under rules and regulations existing when the licenses were awarded."' And, it would turn on its head the Title III statutory scheme under which licensees are accountable for those devices.

Second, the economic impact of the proposed rule on licensees would be severe. **A** *Carterfone* regime would deprive licensees of the ability to fully exploit, and have control of, the use of spectrum for their own benefit, as allowed under the rules and policies currently in place.

Third, a *Carterfone* regime would undermine licensees' reasonable, investment-backed expectations. Current licensees acquired licenses that the Commission explicitly denominated "exclusive," which include the right to sell bundled service and handsets to operate on mobile frequencies. In addition, licensees have invested significant sums to develop the spectrum so acquired – investments that were premised on the reasonable expectation of exclusivity and the

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99 *Penn Central Transportation Co. v. City of New York,* 438 **U.S.** 104, 124 (1978).

100 *See, e.g., Redevelopment of Spectrum to Encourage Innovation in the Use of the New Telecommunications Technologies, Notice of Proposed Rulemaking, 7* FCC Rcd 1542, 1545, ¶¶ 22-24 (1992) (proposing displacement rules that would allow existing licensees to continue current operations to achieve use of investment).

existing regulatory regime. Analogous impacts on intangible property rights have been deemed a regulatory taking.[101]

The FCC Has No Authority to Take Property. Because of the serious takings problems created by authorizing *Carterfone* rights within the currently exclusive spectrum of existing CMRS licensees, it would be unlawful for the Commission to implement such a scheme. In *Bell Atlantic Telephone Cos. v. FCC*,[102] the D.C. Circuit made clear that the Commission may not adopt a rule that constitutes or approaches an uncompensated taking unless Congress has clearly and unambiguously delegated such authority. Congress has taken no such action. As a result, the Commission is barred from allowing a *Carterfone-like* regime in spectrum that is currently subject to exclusive CMRS licenses.

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101 *See Ruckelshaus v. Monsanto Co.*, 467 *U.S.* 986 (1984).

102 *Bell Atlantic Tel. Cos. v. FCC,* 24 F.3d 1441 (D.C. Cir. 1994).

V. CONCLUSION

Skype's Petition is legally and factually flawed and ignores the technological and regulatory problems associated with implementing the relief Skype seeks. Applying *Carterfone* to the wireless industry would not help but rather would hurt consumers. Accordingly, Skype's Petition should be denied.

Respectfully submitted,

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